Please find below and/or attached an Office communication concerning this application or proceeding.

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on *16 July 1999* .

2a) ☐ This action is **FINAL**.  2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) *1-35* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-35* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5,6.*
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

1.     Claims 1 – 35 are presented for the examination.

### *Claim Rejections - 35 USC § 102*

2.     The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) do not apply to the examination of this application as the application being examined

was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

122(b).  Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment

by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.     Claims 1, 2, 10, 11, 15, 19-23, 30, and 31 are rejected under 35 U.S.C. 102(e) as being

anticipated by Diepstraten et al. ( US Patent No 6243736 ).

4.     As per claim 1, Diepstraten teaches a computer-readable medium having computer-

executable instructions, comprising:

executing a background task ( e.g. col 4, line 3-4 );

receiving data indicative of a measured progress of the background task ( e.g. col 4, line

5-7 );

and determining when to run the background task based on the data ( e.g. col 4, line 7-8 ).

5.      As per claim 2, Diepstraten teaches the computer-executable instructions for:

suspending the background task for a suspend time ( e.g. col 2, line 1-5 ),

and authorizing ( i.e. allow ) the background task to execute ( e.g. col 11, line 15-17 ).

6.      As per claim 10, Diepstraten teaches determining when to run the background task

includes determining a suspend time for suspending the background task ( e.g. col 2, line 48-57 ),

and wherein the suspend time is further based on a relative important of the task ( i.e. priority ) (

e.g. col 2, line 50-53 and col 4, line 32-38 ).

7.      As per claim 11, Diepstraten teaches determining when to run the background task

includes statistically combining the data received with previous data ( e.g. col 8, line 28-36 ).

8.      As per claim 15, Diepstraten teaches the background task is executed for a limited time (

i.e. time slice ), and the data include a count of the number of operations performed during the

limited time ( e.g. col 4, line 46-53 ).

9.      As per claim 19, Diepstraten teaches the background task performs input/output

operations on a resource ( e.g. col 2, line 65-col 3, line 10 ).

10.     As per claim 20, Diepstraten teaches the computer-executable instructions for prioritizing

an execution of at least one other task ( e.g. col 2, line 10-19 ).


11.     As per claims 21, 22, 23, 30, 31, they are rejected for similar reasons as stated above in

claims 1, 2, 10, 19 and 20 respectively.  Furthermore, Diepstraten discloses the computation

mechanism ( i.e. program interruption facility ) ( e.g. col 2, line 1-5 ).


## Claim Rejections - 35 USC § 103

12.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains.  Patentability shall not be negatived by the
> manner in which the invention was made.


13.     Claims 3-7, 9, 12, 13, 16, 17, 24-26, 28, 29, 32 and 33 are rejected under 35 U.S.C.

103(a) as being unpatentable over Diepstraten ( US Patent No 6243736 ), in view of Jennings, Jr.

et al. ( US Patent No 5542088 ).


14.     As per claim 3, Diepstraten does not disclose the limitation of the claim.  Jennings

discloses the determining when to run the background task includes comparing the measured

progress of the background task against a target progress ( e.g. col 10, line 43-58 ).  At the time

the invention was made, it would have been obvious to a person skill in the art to combine

Diepstraten and Jennings because it measures the system efficiency and its performance to

prevent application corruption or system failure.

15.     As per claim 4, it is rejected for similar reasons as stated above in claim 2.

16.     As per claim 5, Diepstraten teaches if the measured progress with respect to the target

progress is acceptable, setting the suspend time to a relatively low duration ( e.g. col 19, line 44-

48 ).

17.     As per claim 6, Diepstraten does not disclose the limitation of the claim.  Jennings

discloses setting the suspend time to a relatively low duration includes setting the suspend time

to a minimum value ( i.e. lowest priority ) ( e.g. col 10, line 31-32 ).  At the time the invention

was made, it would have been obvious to a person skill in the art to combine Diepstraten and

Jennings because it allows the system to focus on more important task to increase system

performance.

18.     As per claim 7, Diepstraten does not disclose the limitation of the claim.  Jennings

discloses if the measured progress with respect to the target progress is not acceptable, increasing

the suspend time ( i.e. increasing priority level ) ( e.g. col 9, line 55-58 ).  At the time the

invention was made, it would have been obvious to a person skill in the art to combine

Diepstraten and Jennings because it allows the system to focus on more important task to

increase system performance.

19.     As per claim 9, Diepstraten does not disclose the limitation of the claim. Jennings

discloses if the measured progress with respect to the target progress is not determinable by

present data, maintaining the suspend time ( i.e. maintaining priority ) ( e.g. Abstract, line 12-15

). At the time the invention was made, it would have been obvious to a person skill in the art to

combine Diepstraten and Jennings because it allows the system to focus on more important task

to increase system performance.


20.     As per claims 12 and 13, they are rejected for similar reasons as stated above.

Furthermore, Jennings discloses determining a target value indicative of a target amount of work

and using measured progress data to automatically calibrate the target amount ( e.g. Figure 2 ).

At the time the invention was made, it would have been obvious to a person skill in the art to

combine Diepstraten and Jennings because it measures the system efficiency and its performance

to prevent application corruption or system failure.


21.     As per claim 16, Diepstraten does not disclose the limitation of the claim. Jennings

discloses the data includes total real time taken for the operations to complete ( e.g. col 15, line

65-66 ). At the time the invention was made, it would have been obvious to a person skill in the

art to combine Diepstraten and Jennings because it measures the system efficiency and its

performance to prevent application corruption or system failure.

22.     As per claim 17, Diepstraten does not disclose the limitation of the claim. Jennings

discloses the data include a parameter representing the relative amount of work performed by

each operation ( e.g. col 15, line 62-64 and col 16, line 41-44 ). At the time the invention was

made, it would have been obvious to a person skill in the art to combine Diepstraten and

Jennings because it measures the system efficiency and its performance to prevent application

corruption or system failure.

23.     As per claims 24, 25, 26, 28, 29, they are rejected for similar reasons stated as above in

claims 12, 13, 11, 15-17 respectively.

24.     As per claims 32 and 33, they are rejected for similar reasons as stated above.

Furthermore, Jennings discloses the progress of the task is degraded relative to the target

progress ( e.g. col 1, line 26-30 ). At the time the invention was made, it would have been

obvious to a person skill in the art to combine Diepstraten and Jennings because it measures the

system efficiency and its performance to prevent application corruption or system failure.

25.     Claims 14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Diepstraten ( US Patent No 6243736 ), in view of Borkenhagen et al. ( US Patent No 6067157 ).

26.     As per claim 14, Diepstraten does not disclose the measured progress comprises an

amount of work performed per unit time. Borkenhagen discloses the above limitation ( e.g. col

1, line 66-col 2, line 1 ). At the time the invention was made, it would have been obvious to a

person skill in the art to combine Diepstraten and Borkenhagen because it measures the system

efficiency and its performance to prevent application corruption or system failure.

27.    As per claim 27, it is rejected for similar reasons as stated above in claim 14.

28.    Claims 8 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Diepstraten ( US Patent No 6243736 ), in view of Jennings, Jr. et al. ( US Patent No 5542088 ),

and further in view of Borkenhagen et al. ( US Patent No 6067157 ).

29.    As per claim 8, Diepstraten and Jennings do not disclose the limitation of the claim.

Borkenhagen discloses increasing the suspend time includes doubling a previous suspend time (

e.g. col 15, line 33-36 ). At the time the invention was made, it would have been obvious to a

person skill in the art to combine Diepstraten, Jennings and Borkenhagen because it allows the

system to focus on more important task to increase system performance.

30.    As per claim 35, Diepstraten and Jenning do not disclose the limitation of the claim.

Borkenhagen discloses the step of adjusting the target amount based on the progress of the task (

e.g. col 17, line 67-col 18, line 5 ). At the time the invention was made, it would have been

obvious to a person skill in the art to combine Diepstraten, Jennings and Borkenhagen because it

allows the system to focus on more important task to increase system performance.

31.    Claims 18 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Diepstraten ( US Patent No 6243736 ), in view of Jennings, Jr. et al. ( US Patent No 5542088 ),

and further in view of Whiting al. ( US Patent No 5778395 ).

32.    As per claims 18 and 34, Diepstraten and Jennings do not disclose the limitation of the

claims.  Whiting discloses the background task is part of a process for recognizing duplicate files

on a file system partition ( e.g. Abstract ), and wherein the amount of work performed by each

operation is an amount of data read from the partition ( e.g. col 1, line 35-37 ).  At the time the

invention was made, it would have been obvious to a person skill in the art to combine

Diepstraten, Jennings and Whiting because it allows data to be kept consistent and also duplicate

files may be identified across nodes, so that only a single copy of the contents of the duplicate

files is stored in the backup storage means ( e.g. Whiting, col 5, line 9-12 ).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Dustin Nguyen whose telephone number is (703) 305-5321.  The
examiner can normally be reached on Monday – Friday (8:00 – 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Ario Etienne can be reached on (703) 308-7562.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directly to the receptionist whose telephone number is (703) 305-3900.

Dustin Nguyen

DN

10/18/02

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